CLAIMS:

1. A combustion chamber assembly for use in a combustion-powered fastener driving tool, comprising:

a cylinder body;

a reciprocating probe assembly slidably mounted to said cylinder body between a first, extended position and a second, retracted position, said probe assembly and configured for contacting a workpiece; and

at least one shock-absorbing member operationally associated with at least one of said cylinder body and probe assembly for reducing shock load generated during operation of the tool.

2. The assembly of claim 1 wherein said probe assembly includes an upper probe including at least one arm portion configured for sliding relationship relative to said cylinder body, said at least one shock-absorbing element disposed between said at least one arm and a corresponding element of said cylinder body for transmitting loads from said probe assembly to said cylinder body.

3. The assembly of claim 2, wherein said upper probe includes a substantially perpendicular lip at an upper end for contacting said at least one shock-absorbing element.

4. The assembly of claim 2 wherein said cylinder body defines a track for the slidable relative movement of said probe assembly, and said at least one shock-absorbing member is configured for slidable movement in said track.

5. The assembly of claim 4 wherein said cylinder body includes at least one tab for defining an upper limit of movement of said probe assembly.

6. The assembly of claim 5 wherein said at least one shock-absorbing member is configured for common travel with said probe assembly to said tab.

7. The assembly of claim 6 wherein said at least one shock-absorbing member is freely slidable in said track.

8. The assembly of claim 6 wherein said at least one shock-absorbing member is secured to one of said probe assembly and said tab.

9. The assembly of claim 6 wherein said at least one shock-absorbing member includes a first portion secured to said probe assembly and a second portion secured to said tab.

10. The assembly of claim 7 wherein said at least one shock-absorbing member is configured to be substantially complementary with said path.

11. The assembly of claim 1, wherein said at least one shock-absorbing member is generally cylindrical in shape.

12. The assembly of claim 1, wherein said at least one shock-absorbing member is configured for reducing load forces generated in a combustion chamber of said assembly upon said probe assembly reaching said second position, and being configured to have sufficient rigidity to limit the travel of said probe assembly relative to said cylinder body and also sufficient resilience for absorbing shock forces generated by the tool in said second position.

13. The assembly of claim 1 further including at least one spring between said probe assembly and said cylinder body, configured for biasing said probe assembly into the first position.

14. The assembly of claim 13, wherein said probe assembly is biased into said first position by a single conical spring associated with said probe assembly.

15. The assembly of claim 13 further including a retaining ring, wherein one end of said spring is seated on said retaining ring.

16. The combustion chamber assembly of claim 15, wherein a larger diameter end of said spring is mounted to said retaining ring and a smaller diameter end of said spring is mounted to said probe assembly.

17. A combustion chamber assembly for use in a combustion-powered fastener driving tool, comprising:

a cylinder body;

a reciprocating probe assembly slidably mounted to said cylinder body between a first, extended position and a second, retracted position; and

a single spring disposed between said probe assembly and said cylinder body and configured for biasing said probe assembly into the first position.

18. The assembly of claim 17, wherein said single spring is a conical spring.

19. The assembly of claim 17, wherein a larger diameter end of said spring is mounted to a retaining ring and a smaller diameter end of said spring is mounted to said probe assembly.